

DIALOG(R)File 347:JAPIO

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01789921 **Image available**

DRIVING METHOD OF LIQUID CRYSTAL ELEMENT

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003/36

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(COMMUNICATION -- Other)

JAPIO KEYWORD:R005 (PIEZOELECTRIC FERROELECTRIC SUBSTANCES); R011
(LIQUID CRYSTALS); R096 (ELECTRONIC MATERIALS -- Glass Conductors)

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03, 1986 (19860603)

ABSTRACT

PURPOSE: To display an image plane consisting of many picture elements at a high speed by applying a scanning signal and a display signal to the drain or source and gate of an FET corresponding to a picture element where ferroelectric liquid crystal is charged respectively and performing the 1st writing operation, and applying a display signal for the 2nd writing.

CONSTITUTION: Ferroelectric liquid crystal which has a bistable state to an electric field is charged between picture element electrodes which have FETs corresponding to respective picture elements and a counter electrode, thus constituting the liquid-crystal element. Drains or sources of the FETs which constitute an active matrix are connected to scanning electrodes 6, gates are connected to display electrodes 7, and the counter electrode is a common electrode. A scanning signal is applied to an electrode 6 and a display signal is applied to a display electrode 7 to control the array of the liquid crystal, writing a display state based upon the 1st orientation state. Then, a specific display signal is applied to an electrode 7 to write the 2nd orientation state, thus driving the liquid crystal on a time-division basis. Consequently, a display of an image plate consisting of many picture elements is made at a high speed.

DIALOG(R)File 352:DERWENT WPI
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This seems to correspond
to JP61-4021.
Would you confirm?

004485515

WPI Acc No: 85-312393/198550

XRPX Acc No: N85-231909

Liquid crystal display element - uses field-effect transistor drivers for
bi-state ferro-electric liquid crystal display cells

Patent Assignee: CANON KK (CANO)

Inventor: OKADA S; TAMURA Y

Number of Countries: 002 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Main IPC	Week
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FR 2563649	A	19851031					198550 B
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US 4697887	A	19871006	US 85724828	A	19850418		198742
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Priority Applications (No Type Date): JP 84130001 A 19840626; JP

8485119 A

19840428; JP 84118183 A 19840611; JP 84118184 A 19840611; JP
84118185 A

19840611; JP 84118186 A 19840611; JP 84118190 A 19840611; JP

84124511 A

19840619; JP 84124512 A 19840619; JP 84124513 A 19840619

Patent Details:

Patent	Kind	Lan	Pg	Filing	Notes	Application	Patent
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FR 2563649	A		167				
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Abstract (Basic): FR 2563649 A

(+11.6.84 (5), 19.6.84 (9), 22.6.84 (5), 26.6.84 (2) -JP- 118183-6,
118190, 124511-9, 127415-9, 129999, 130000) (1482AH) The display is
made up of multiple field effect transistors each having a gate (34)
and first and second terminals (18, 21); a first substrate (30)
carrying an assembly of electrodes for the image element (22), each of
which is connected to an associated transistor; a second substrate
(30a) carrying counter electrodes (31) situated facing the electrodes
of the image element; and a ferro-electric liquid crystal (33) which
has two stable orientation states and which is interposed between the
two substrates.

The image cells are arranged in a matrix format which is supplied
with the image data in a time multiplexed form, the demultiplexed
signals being applied to the gate of the field effect transistors which
drive the image cell.

USE/ADVANTAGE - Improved image resolution, increased image update
speed, image memory, and increased display area in liquid crystal
displays.

Title Terms: LIQUID; CRYSTAL; DISPLAY; ELEMENT; FIELD; EFFECT;
TRANSISTOR; DRIVE; BI; STATE; FERRO; ELECTRIC; LIQUID; CRYSTAL; DISPLAY;
CELL

Derwent Class: P85; T04; U14

International Patent Class (Additional): G02F-001/13; G09F-009/35;
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File Segment: EPI; EngPI